

IN THE CLAIMS

Claim 1(original): Separator for battery and including a plate shaped structure of inorganic fibers, characterized in that said separator is impregnated with a dispersion of colloidal inorganic nano particles that have been enriched in the crossing points of the fibers when solvent has been dried so as to form binding agent.

Claim 2(original): Separator according to claim 1, characterized in that the separator has been heat treated at a temperature between 300 and 700°C in order to obtain a considerably greater rigidity.

Claim 3(currently amended): Separator according to claim 1 ~~or 2~~, characterized in that the inorganic fibers comprise material of any of the group: glass fiber, mineral fiber, metal fiber.

Claim 4(currently amended): Separator according to claim 1, ~~2 or 3~~, characterized in that the binding agent includes any of the group: SiO₂, Al₂O₃, Al (OH) ₃, TiO₂- 5. Separator according to any of the previous claims, characterized in that the binding agent comprises between about 20% and 60% of the total separator weight.

Claim 6(original): Separator according to claim 5, characterized in that the binding agent comprised between about 25 and 45% of the total separator weight.

Claim 7(currently amended): Battery with positive and negative electrodes, separators and electrolyte, characterized in that it includes at least one separator according to claim 1 ~~any of the claims 1-6~~.

Claim 8(original): Battery according to claim 7, characterized in that it is mounted with a pressure at its electrodes of at least 100 kPa, preferably 150-250 kPa.

Claim 9(currently amended): Battery according to claim 7 ~~or 8~~, characterized in that binding agent has been supplied to the separator in such an amount that it is compressible to about 80% of its thickness at an outside applied pressure of between 80 and 250 kPa.

Claim 10(currently amended): Battery according to claim 7, ~~8 or 9~~ in bipolar form, characterized in that a pressure relieving grid is positioned in each negative electrode.

Claim 11(currently amended): Battery according to claim 7 ~~any of the claims 7-10~~, characterized in that it is comprised of a lead battery with sulphuric acid electrolyte.

Claim 12(original): Method of producing a separator for a battery, wherein a disk-shaped structure comprising inorganic fibres is used, characterized in that said separator is impregnated with a dispersion of colloidal inorganic nano particles which are enriched in the crossing points of the fibres when the solvents is dry so as to form binding agent.

Claim 13(original): Method according to claim 12, characterized in that drying of solvent is obtained through drying at raised temperature.

Claim 14 (currently amended): Method according to claim 12 ~~or 13~~, characterized in that the separator after drying the solvent is heat treated at a temperature between 300 and 700°C in order to obtain a considerably greater rigidity of the bond in said crossing points.

Claim 15 (currently amended): Method according to claim 12, ~~13 or 14~~, characterized in that the inorganic fibres including material from any of the group: glass fibres, mineral fibres, metal fibres are used.

Claim 16 (currently amended): Method according to claim 12 ~~any of claims 12-15~~, characterized in that binding agent from the group: SiO₂, Al₂O₃, Al (OH)₃, TiO₂ is used.

Claim 17 (currently amended): Method according to claim 12 ~~any of claims 12-16~~, characterized in that the binding agent is brought to comprise between about 20 and 60% of the total separator weight.

Claim 18 (currently amended): Method according to claim 12 ~~any of the claims 12-17~~, characterized in that the binding agent is brought to comprise between about 25 and 45% of the total separator weight.